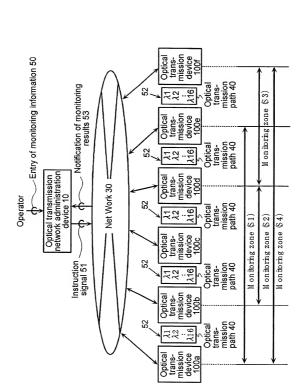
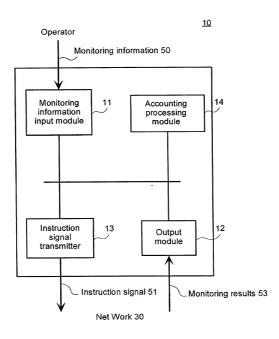
FIG.1



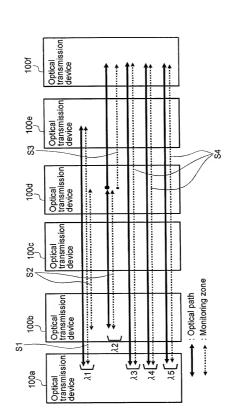
16869P-027000US Chun-Pok Leung, Reg. No. 41,405 Telephone: 650-326-2400 Inventors: Masaki Ohira et al. Sheets of drawings 1 of 13

FIG.2

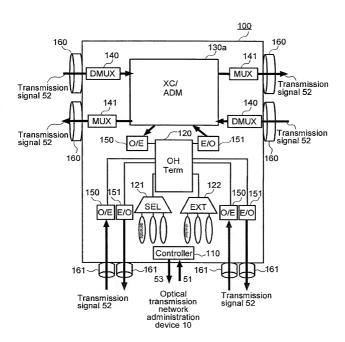


| Category Monitoring information | Setting S1 | Setting S2 | Setting S3 | Setting S4 |
|---|--|---|--|--|
| Monitoring zone | from Node A to Node E | from Node B to Node D | from Node D to Node F | from Node A to Node F |
| Monitoring direction | Bi-directional | Bi-directional | Uni-directional | Bi-directional |
| Monitoring wavelength | λ1 | λ1, λ2 | λ2 | λ3,λ4,λ5 |
| Monitored information (communication alarms) | Optical input interruption alarm / Frame out-of-sync alarm / Near End failure alarm / BER threshold exceeded / Link mismatch alarm | Optical input interruption alarm / Frame out-of-sync alarm / Near End failure alarm / BER threshold exceeded/ Link mismatch alarm / alarm chalarm chalarm chalarm | Optical input interruption alarm / Frame out-of-sync alarm / Near End failure alarm / BER threshold exceeded / Link mismatch alarm | Optical input interruption alarm / Frame out-of-sync alarm / Near End failure alarm / Far End failure alarm / BER threshold exceeded / Link mismatch alarm |
| Monitored information (performance information) | Error count / Error duration (sec) (ES) / Error duration (sec) (SES) / Frame out-of- sync time (sec) / Service downtime (sec) | Error count / Error duration (sec) (ES) / Error duration (sec) (SES) / Frame out-of- sync time (sec) / Service downtime (sec) | Error count / Error duration (sec) (ES) / Error duration (sec) (SES) / Frame out-of- sync time (sec) / Service downtime (sec) | Error count / Error duration (sec) (ES) / Error duration (sec) (SES) / Frame out-of- sync time (sec) / Service downtime (sec) |

FIG.4



16869P-027000US Chun-Pok Leung, Reg. No. 41,405 Telephone: 650-326-2400 Inventors: Masaki Ohira et al. Sheets of drawings 4 of 13



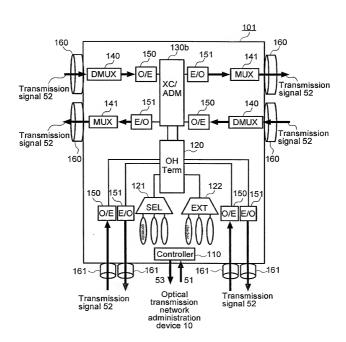
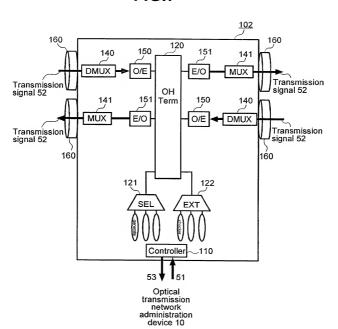
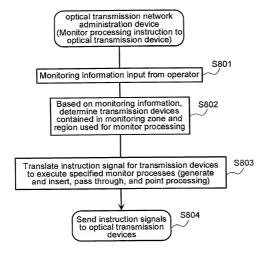


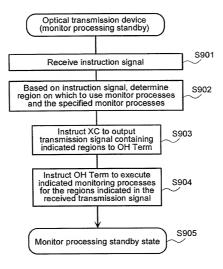
FIG.7

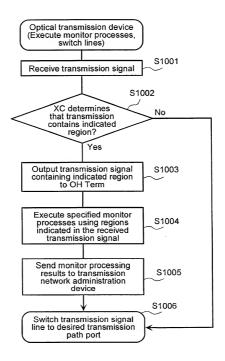


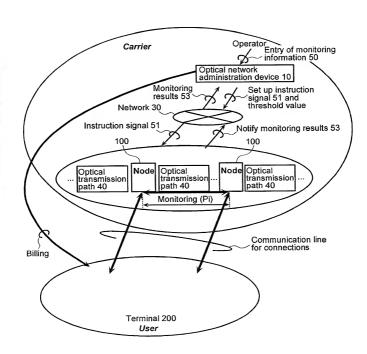
16869P-027000US Chun-Pok Leung, Reg. No. 41,405 Telephone: 650-326-2400 Inventors: Masaki Ohira et al. Sheets of drawings 8 of 13

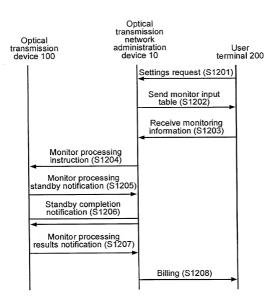


16869P-027000US Chun-Pok Leung, Reg. No. 41,405 Telephone: 650-326-2400 Inventors: Masaki Ohira et al. Sheets of drawings 9 of 13









16869P-027000US Chun-Pok Leung, Reg. No. 41,405 Telephone: 650-326-2400 Inventors: Masaki Ohira et al. Sheets of drawings 13 of 13

